



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,078	07/18/2003	Alan Daniel	10808/59	3307

48581 7590 09/08/2005

BRINKS HOFER GILSON & LIONE  
INFINEON  
PO BOX 10395  
CHICAGO, IL 60610

EXAMINER

LAM, DAVID

ART UNIT PAPER NUMBER

2827

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/623,078

**Applicant(s)**

DANIEL ET AL.

**Examiner**

David Lam

**Art Unit**

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Prosecution on the merits of this application is reopened on claim 1-4, 6-7 considered unpatentable for the reasons indicated below:

### ***Claim Objections***

2. Claim 1 objected to because of the following informalities:
  - In claim 1, line 13, change "fist switching state" to -- first switching state --.

Appropriate correction is required.

### ***Specification***

3. The disclosure is objected to because of the following informalities:
  - On page 5, line 19, change "DRAM array 20" to -- DRAM array --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 rejected under 35 U.S.C. 102(b) as being anticipated by Iwamoto et al. (5,844,859).

Art Unit: 2827

Regarding to claim 1, Iwamoto et al. disclose a DRAM memory system comprising: a switching circuit 5 (Y0) having a first switching state (0) and second switching state (1); a first data path (11R, 11W) associated with a first memory portion (A0) of the DRAM integrated circuit, the first data path comprising a first plurality of master data lines (11 R, 11W) for the first memory portion of the DRAM integrated circuit; a second data path (12R, 12W) associated with a second memory portion (A1) of the DRAM integrated circuit, the second data path comprising a second plurality of master data lines (12R, 12W) for the second memory portion of the DRAM integrated; and a plurality of read-write data lines (input/output of 4) of the DRAM integrated circuit, wherein the first data path is in communication with the plurality of read-write data lines when the switching circuit is in the first switch state, and wherein the second data path is in communicated with the plurality of read-write data lines when the switching circuit is in the second switching state. *See Figs. 6A-6B; Cols 8-9.*

***Allowable Subject Matter***

5. Claims 2-4, 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach the above noted DRAM integrated circuit and further comprise a second plurality of transmission gates, among others as claimed in claim 2, between the second data path and the plurality of read-write line, and conduct in the second switching state and do not conduct in the first switching state.

Art Unit: 2827

6. The following is an examiner's statement of reasons for allowance: Claims 8-12 are allowable over the prior art of record because none of the prior art whether taken singularly or in combination, especially when these limitations are considered within the specific combination claimed, to teach: a DRAM integrated circuit comprising: another plurality of read-write data lines, among others as claimed in independent claim 8, is in communication with the second data path when the switching circuit is in the first switching state.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Noda et al. (6,385,100) disclose a semiconductor memory device with improved column selecting operation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lam whose telephone number is 571-272-1782. The examiner can normally be reached on 6:00 – 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 272-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2827

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**D. Lam**

August 30, 2005



**DAVID LAM**  
**PRIMARY EXAMINER**